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ABSTRACT

Based on research findings which suggest that stop and nasal sounds are difficult to discriminate by some children in the beginning years of school, this test is designed to appraise the ability of children to discriminate fine differentiations of stop and nasal sounds in minimal word-pair items. The major criteria for choice of test items were position of sounds in words, selection of sound contrasts, and selection of word contexts. The revised test consists of five subtests, each containing 50 word-pair items. The test is administered by having the examinee listen to the word-pair items presented on a tape recorder and respond verbally as to whether the words are alike or different. The subject is given some general practice before the playing of the tape selection. [This document is one of those reviewed in The Research Instruments Project (TRIP) monograph "Measures for Research and Evaluation in the English Language Arts" to be published by the Committee on Research of the National Council of Teachers of English in cooperation with the ERIC Clearinghouse on Reading and Communication Skills. A TRIP review which precedes the document lists its category (Auditory Discrimination-Reading), title, author, date and age range (pre-school, primary), and describes the instrument's purpose and physical characteristics.] (WR)

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The Research Instruments Project (TRIP)

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Measures for Research and Evaluation in the English Language Arts

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CS 201 345

NATIONAL COUNCIL OF TEACHERS OF ENGLISH
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Category: Auditory Discrimination (Reading)

Title: S-N Auditory Discrimination Test

Author: Sister Mary Therese Gavin

Age Range: Pre-school, Primary

It is possible that this test could be used with children in the Primary Grades.

Description of the Instrument:

Purpose - To appraise the ability of children to discriminate fine differentiations of stop and nasal sounds in minimal word-pair items.

Date of Construction - 1970

Physical Description - Based on research findings (Cosens, 1968) which suggested that stop and nasal sounds were difficult to discriminate by some children in their beginning years of school, items on the SN-Auditory Discrimination Test (SNADT) were limited to stop and nasal sounds. The major criteria for choice of test items were (1) position of sounds in words, (2) selection of sound contrasts, (3) selection of word contexts. (1) Stops and nasal sounds /p, t, k/; /b, d, g/; /m, n, ŋ/ are studied in initial and final positions preceding or following simple vowel sounds in all conceivable combinations. (2) The contrasts studied are: bilabial - bilabial, alveolar-alveolar, velar-velar, bilabial-alveolar, alveolar-velar, bilabial-velar. (3) Short words in which the sound contrasts would be most distinct are used. A combination of two phonemes would not allow for sufficient juxtaposition of vowel environments and consequently sequences of phonemes of the CVC type are used. The initial form of the SNADT

consisted of 425 minimal word-pair items, 75 like word-pairs and 350 unlike word-pairs. After completion of a pilot study, 250 items, 61 like word-pairs and 189 unlike word-pairs were retained in the test. The revised test consists of five subtests each containing 50 word-pair items.

Administration of the SNADT is similar to that of the Wepman Auditory Discrimination Test. Unlike the Wepman, the examinee is seated facing the examiner. The examinee listens to the word-pair items presented on the tape-recorder and responds verbally as to whether the words are alike or different. To ensure the child's understanding of the testing procedure and to ascertain the child's knowledge of alike or different sounds, the subject is given some general practice before the playing of the tape recording. Three practice word-pair items are presented to the child at the beginning of the tape recording to allow the child to become accustomed to the testing situation. All responses which indicate the child's expression of alike or different are accepted. To avoid factors of fatigue and inattentiveness the child is not required to complete two subtests in succession.

Validity, Reliability and Normative Data:

Normative data were derived from 100 Kindergarten children and the same children six months later in Grade One. Total scores on the SNADT in Kindergarten ranged from 0 to 233 with a mean score of 165.23 and in Grade One from 59 to 241 with a mean score

of 198.69. Mean total scores of subtests also increased consistently over the six-month period. Means on total subtests scores in Kindergarten ranged from 30.90 to 34.78, and in Grade One from 38.75 to 40.14. As in total test score and subtest score results, difficulty indexes for any word-pair item revealed an increase in the ability of pupils from Kindergarten through Grade One to discriminate between the specific sound contrasts included in the SNADT. Content validity is established for the test and is dependant upon the definition of auditory discrimination. All minimal word-pairs require hearing fine discriminations of stop and nasal sounds. As stop and nasal sounds are considered to be middle frequency tones having between 1400 and 3200 double vibrations per second, test items require hearing the differences between a pair of phonemes within the same frequency as well as within the environment of the same vowel sounds. Choice of test items was based on the research of Miller and Nicely (1955), Cosens (1968), and Oberg (1970). The reliability coefficient based on the KR-20 formula and calculated on the results of 100 subjects in Kindergarten and Grade One was .98.

Ordering Information:

EDRS

Related Documents:

Cosens, G.V. "An Experimental Study of the Effect of Training in Auditory

Discrimination on Reading Achievement in Grade One," Unpublished Master's thesis, The University of Alberta, Edmonton, 1968.

Gavin, Sister Mary Therese. "The Impact of Phonological Environment upon Auditory Discrimination of Word-Pairs and Its Relation to Beginning Reading," Unpublished Doctoral Dissertation, The University of Alberta, Edmonton, 1972.

Miller, G.E. and Nicely, P.A. "An Analysis of Perceptual Confusions Among Some English Consonants," Journal of the Acoustical Society of America, 1955, 27, 338 - 352.

Oberg, Alaire. "Auditory Discrimination Ability of Children in Kindergarten, Grades One, Two, and Three," Unpublished Master's Thesis, University of Alberta, Edmonton, 1970.

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Sister Mary Therese Gavin
"S-N Auditory Discrimination Test"
1970

S-N AUDITORY DISCRIMINATION TEST
(Revised)

1.	mod	nod*	26.	cup	cup
2.	gear	bear	27.	nob	nob
3.	peet	peak	28.	dab	dad
4.	dug	dug	29.	dag	gag
5.	boom	boom	30.	ting	king
6.	pin	ping	31.	bake	bait
7.	tame	came	32.	bum	bun
8.	bade	bade	33.	tam	cam
9.	but	buck	34.	bib	bid
10.	pat	pack	35.	take	take
11.	daub	gob	36.	toque	tote
12.	poon	poon	37.	bock	bot
13.	tote	tope	38.	tab	tag
14.	bog	bob	39.	tin	kin
15.	dune	goon	40.	pan	can
16.	pet	peck	41.	nape	nape
17.	palm	palm	42.	bet	get
18.	min	mim	43.	peep	peak
19.	cog	cob	44.	meet	meek
20.	mack	mat	45.	nap	map
21.	nut	mutt	46.	gib	gig
22.	sheep	sheath	47.	nog	nob
23.	dean	gean	48.	bet	debt
24.	not	knock	49.	mutt	muck
25.	bag	dag	50.	beg	beg

TEST 2

1. mog - nog
2. coor - coop
3. pick - pip
4. main - maim
5. deign - bane
6. cut - cup
7. pot - pop
8. gean - gean
9. mob - mod
10. toque - tope
11. bomb - bon
12. take - tape
13. keg - teg
14. mock - knock
15. winning - winging
16. meat - neat
17. met - met
18. calm - calm
19. mab - nab
20. mitt - knit
21. cop - cock
22. coop - poop
23. peat - teat
24. mog - mob
25. gad - gag
26. good - good
27. mug - mug
28. nap - gnat
29. cub - cub
30. dug - bug
31. bid - bid
32. pam - pan
33. took - took
34. cope - coke
35. tame - tain
36. sinner - singer
37. pug - pub
38. dote - dote
39. bet - beck
40. god - gob
41. numb - nun
42 bon - bong
43. tong - pong
44. pop - top
45. tomb - tune
46. keep - peep
47. gib - gib
48. doom - dune
49. tap - tat
50. pang - tang

TEST 3.

1.	mood	-	nude	26.	tap	-	tack
2.	moot	-	moot	27.	noon	-	noon
3.	game	-	gain	28.	bale	-	vale
4.	tap	-	cap	29.	poke	-	poke
5.	bing	-	ding	30.	cad	-	tad
6.	could	-	could	31.	don	-	dong
7.	mode	-	mode	32.	cape	-	cake
8.	brimming	-	bringing	33.	ked	-	ted
9.	mead	-	need	34.	bog	-	bog
10.	putt	-	puck	35.	gab	-	gab
11.	came	-	cane	36.	back	-	bat
12.	deb	-	deb	37.	beak	-	beat
13.	ben	-	den	38.	nag	-	nag
14.	mad	-	mad	39.	deem	-	dean
15.	kin	-	king	40.	mem	-	men
16.	nap	-	knack	41.	bug	-	bud
17.	big	-	dig	42.	dam	-	dan
18.	tog	-	tog	43.	tip	-	tip
19.	tan	-	tam	44.	toot	-	coot
20.	make	-	mate	45.	pot	-	pock
21.	gone	-	bon	46.	neck	-	net
22.	pit	-	pit	47.	mum	-	numb
23.	gap	-	gat	48.	met	-	net
24.	mud	-	mug	49.	deign	-	dame
25.	but	-	gut	50.	pig	-	pig

TEST 4.

1.	tan	-	can	26.	tat	-	tack
2.	take	-	cake	27.	gob	-	gob
3.	paid	-	paid	28.	dean	-	dean
4.	deign	-	deign	29.	bam	-	ban
5.	tip	-	tick	30.	dag	-	dag
6.	ban	-	bang	31.	moon	-	noon
7.	bead	-	bead	32.	nut	-	nut
8.	kick	-	kit	33.	fret	-	threat
9.	knack	-	gnat	34.	cod	-	cog
10.	moan	-	known	35.	teg	-	teg
11.	cope	-	pope	36.	pop	-	pock
12.	cook	-	took	37.	beak	-	beep
13.	teen	-	keen	38.	boat	-	dote
14.	palm	-	calm	39.	beg	-	bed
15.	dab	-	gab	40.	ton	-	tongue
16.	did	-	gid	41.	nip	-	knit
17.	bed	-	dead	42.	cope	-	cope
18.	tuck	-	puck	43.	dud	-	dub
19.	dug	-	dub	44.	pam	-	tam
20.	tan	-	pan	45.	mat	-	map
21.	bin	-	din	46.	pot	-	pot
22.	coke	-	coke	47.	balm	-	balm
23.	cone	-	comb	48.	dude	-	good
24.	bong	-	dong	49.	pen	-	ken
25.	dig	-	did	50.	cab	-	cad

TEST 5.

1. nog - nod
2. puck - puck
3. gone - don
4. gid - gig
5. tote - coat
6. peak - peak
7. gib - gid
8. tod - tog
9. pome - pone
10. bib - dib
11. bode - goad
12. teak - teak
13. guile - dial
14. neck - neck
15. deign - gain
16. gut - gut
17. geck - geck
18. shape - shake
19. mod - mod
20. tome - tome
21. cam - can
22. tug - pug
23. tain - cane
24. node - node
25. nob - nod
26. ban - dan
27. peep - peat
28. beam - bean
29. mode - mode
30. wedge - wedge
31. top - tot
32. poke - toque
33. beep - beat
34. goat - boat
35. boob - boob
36. sung - sun
37. mab - mad
38. game - dame
39. tick - kick
40. tome - tone
41. tug - tub
42. cog - cog
43. pub - tub
44. bon - don
45. pep - pet
46. cat - cap
47. bug - bug
48. coke - coat
49. dock - dot
50. tuck - tuck

Category: Memory (Reading)

Title: Auditory Memory Span for Letters Test

Author: Sister Mary Therese Gavin

Age Range: Pre-school, Primary

Description of the Instrument:

Purpose - To determine auditory memory span for letters.

Date of Construction - 1970

Physical Description - As there were no adequately standardized auditory memory span tests for word elements available in May, 1970, an auditory memory span test for letters was constructed by the investigator and validated by comparing it with the digit-span test used in the Wechsler Intelligence Scale for Children (WISC). The test is an adaptation of the digit-span subtest of the WISC. It is based on stop and nasal sounds and is divided into levels similar to the digit-span test of the WISC. The stop and nasal sounds (p, t, k; d, g; m, n, ŋ) were numbered consecutively one to nine, and the corresponding number was replaced with the designated letter. For example, the digit span item 2-8-6 was substituted by the letter span item T-N-G. Two letters of the alphabet were needed to represent the nasal /ŋ/. Therefore, the letter "c" was substituted because it was the first consonant representing a sound of the alphabet not already used in the test. All letters presented are administered by name. Hence, for each letter there is a C-V type sound (e.g. /ti/, /nə/, /ji/). The sounds are said at one second intervals and the child is required to repeat the sounds in sequence. Two attempts are allowed at each level. As for the WISC, two scores are obtained, one for letters forward and one for letters backward. If the first item

in a series is correctly repeated, the second item is not administered. The test is discontinued when the subject fails two of the trials in the same series. The score is dependent upon the number of letters in the series. The highest number of letters correctly produced on each series is added to give a total memory span for letters score.

Validity and Reliability:

The statistical analysis of data in the study, revealing a mean score of three for auditory memory span for letters forward and a mean score of two for letters backward, may be indicative of an adequate auditory memory span for success in beginning reading. Validity was claimed for this test by incorporating letters and by planning these in the same patterns as on the WISC. No reliability data are available.

Ordering Information:

ED

Related Documents:

Gavin, Sister Mary Therese. "The Impact of Phonological Environment upon Auditory Discrimination of Word-Pairs and Its Relation to Beginning Reading," Unpublished Doctoral dissertation, The University of Alberta, Edmonton, 1972.

AUDITORY MEMORY SPAN FOR LETTERS TEST

These tests are administered separately. The letters presented are administered by name. The sounds are said at one second intervals and the child is required to repeat the sounds in sequence. Two attempts are allowed at each level. If the first item in a series is correctly repeated, the second item is not administered. The test is discontinued when the subject fails two of the items in the same series. Two scores are obtained, one for letters forward and one for letters backward. The score is dependent upon the highest number of letters correctly produced in each series.

Letters Forward

Directions: Say,"I am going to say some letters. Listen carefully, and when I am through say them right after me. For example, if I say 'D B', what would you say?"

Trial I	Trial II
1. T N G	1. G P B
2. T D P M	2. G P K N
3. N D B T C	3. K B P N G
4. T N C P M D	4. M C G D N T
5. K P M D B T N	5. C N K B P G T
6. P G D K C M G T	6. B C M G T P K D
7. K T N M P B D G C	7. D B G C P M N T K

Letters Backward

Directions: Say, "Now I am going to say some more letters, but this time when I stop I want you to say them backward. For example, if I say 'B M', what would you say?"

Trial I	Trial II
1. B K	1. G T
2. K M D	2. B K C
3. M B C G	3. N D C T
4. D P T K M	4. C M N K B
5. P G K B C N	5. T G M P C D
6. N K C B T D B	6. D K M C B N P
7. G C P G T B K N	7. T P M C K D N B

Score: Letters Forward _____

Letters Backward _____